

Department of Defense
Armed Forces Health Surveillance Branch
Yellow Fever in Africa Surveillance Summary
(11 AUG 2016)



Approved for Public Release

For questions or comments, please contact:
dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil



DEPARTMENT OF DEFENSE (AFHSB)

Yellow Fever in Africa Surveillance Summary #4

11 AUG 2016 (next report 25 AUG 2016)



CASE REPORT: On 21 JAN, WHO was notified by the National Directorate of Public Health Angola of a [yellow fever](#) outbreak that began on 5 DEC 2015 in Luanda province. As of 4 AUG, 3,867 (+119) suspected yellow fever cases with 369 (+5) deaths have been reported since the beginning of the outbreak, of which 879 have been laboratory confirmed. **Between 1 JUL and 4 AUG, no confirmed cases were reported in Angola.** Luanda and Huambo, the two most affected provinces, have not recorded laboratory confirmed cases since MAY. Officials have expressed concern regarding insufficient surveillance and significant delays in reporting in Benguela province, which showed an increase in the number of suspected yellow fever hospitalizations; **over the past week hospitalizations have stabilized in Benguela.** Local transmission of yellow fever has been confirmed in 12 provinces. Confirmed imported cases of yellow fever from Angola have been reported from the Democratic Republic of the Congo (DRC) (at least 67 (+8)), China (11), and Kenya (2).

On 23 APR, the Ministry of Health (MOH) of DRC officially declared a yellow fever outbreak, and on 20 JUN, the DRC Health Minister declared “a localized epidemic of yellow fever” in Kinshasa, Kongo Central, and Kwango provinces. As of 24 JUN, 87 yellow fever cases have been laboratory confirmed. Of these, nine were autochthonous cases linked to the current outbreak, and at least 67 cases were imported from Angola with a majority reported from Kinshasa, Kongo Central, and Kwango provinces. **Lualaba province recently reported its first confirmed imported case from Angola.** Two of the confirmed cases were sylvatic cases reported from Bas-Uele and Tshuapa. According to WHO, between 1 JAN and 27 JUL 2016 a total of 2,051 (+253) suspected cases of yellow fever, including 95 (+10) deaths, were reported by the DRC’s national surveillance system. A mobile laboratory from the European Union **has arrived in DRC** “in order to fast track and strengthen diagnosis.”

According to the [WHO Situation Report on 5 AUG](#), suspected yellow fever cases in Africa have also been reported from Uganda (7 confirmed) and Ghana (4 suspected cases). **All suspected cases previously reported from Guinea and Uganda have been ruled out.** The confirmed cases in Uganda and the suspected cases in Ghana are not linked to Angola. On 30 JUN, Ugandan authorities in Masaka district “declared that they have successfully contained the spread of yellow fever.”

In the Western Hemisphere, confirmed and suspected cases have been reported by Peru (50 (+13) confirmed, 28 (-14) probable), Brazil (2 cases), and Colombia (1 sylvatic case). The most recently reported case in Brazil, who died on 2 APR, is being investigated for a potential link to Angola. The other cases in the Western Hemisphere are not related to Angola, DRC, or Uganda.

On 19 MAY, WHO convened an [Emergency Committee](#) and determined that although the urban yellow fever outbreaks in Angola and DRC are serious public health events, they do not constitute a Public Health Emergency of International Concern (PHEIC). On 13 JUN, CDC updated its [Alert Level 2, Practice Enhanced Precautions](#) travel notice for Angola and its Watch Level 1, Practice Usual Precautions travel notices for [DRC](#) and [Uganda](#).

VACCINATION EFFORTS: In a press release on 6 AUG, WHO stated more than 17 million additional people in Angola and DRC are expected to be vaccinated before the rainy season begins in SEP. Thus far, 16 million people have been vaccinated in these two countries. On 22 JUN, WHO announced that pre-emptive vaccination campaigns will be launched along the Angola-DRC border, particularly in areas of intense trade traffic and high population movement, targeting 15.5 million people. WHO is also planning a vaccination campaign in Kinshasa using fractional doses **to vaccinate 8.5 million people.**

In Angola, 18 districts in 10 provinces will begin vaccinations on 15 AUG. WHO reports limited syringes and missing vaccination materials continue to impede the vaccination efforts in Angola. Additional syringes are expected to arrive on 9 AUG to carry out the vaccination campaigns beginning on 15 AUG. According to media, one million doses of vaccine sent to Angola from WHO in FEB are unaccounted for; Angolan officials deny any mishandling, stating no doses have disappeared. Insufficient supplies, including syringes and ice packs, have also hampered efforts to contain the ongoing outbreak.

On 20 JUN, DRC launched a ten-day mass vaccination campaign in two provinces; according to a health official quoted in media, all immunizations given were full doses. **Additional vaccines and vaccination materials were expected to arrive in Kinshasa on 5 AUG in preparation for a preventative campaign in Kinshasa and other health zones along the border with Angola.** Health officials expect more vaccine to arrive from Brazil within the next month; this supply of vaccine will be administered as fractional doses. Shortages of the smaller syringes needed for the one-fifth vaccine dosage and cold-chain deficiencies continue to pose a barrier to vaccination campaigns in DRC. A sufficient supply of smaller syringes is expected to arrive in AUG.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (28 JUL 2016).

All information has been verified unless noted otherwise. Sources include: Angola Ministry of Health, Peru MOH, GIDEON, Reuters, All Africa, and Voice of America.

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VACCINATION EFFORTS cont'd: In Uganda, vaccination campaigns were conducted in the affected areas of Masaka, Rukunguri, and Kalangala, resulting in 91%, 97%, and 94% vaccination coverage, respectively. Planning is underway to incorporate the yellow fever vaccine into routine immunization programs in Uganda.

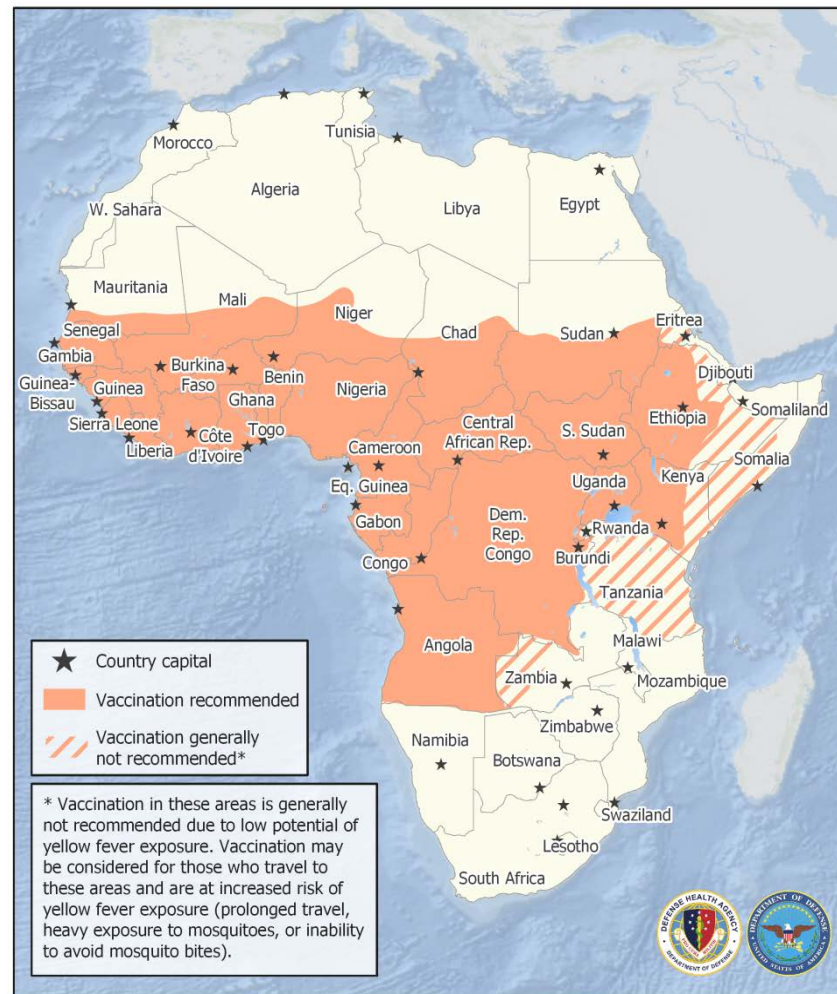
GLOBAL VACCINE POLICY & RESEARCH: On 17 JUN, WHO's Strategic Advisory Group of Experts (SAGE) on Immunization stated that fractional dosing is under consideration as a short term measure in instances of vaccine supply shortage, and that evidence supports the use of one-fifth of the current dosage, which will provide immunity for at least 12 months. It is unknown if this smaller dose would provide sufficient protection to children. Receiving a fractional dose will not qualify for a yellow fever immunization certificate under International Health Regulations (IHR) requirements.

On 17 JUN, Brazil's MOH announced all travelers to and from Angola and DRC, including delegations entering Brazil for the 2016 Olympics and Paralympics, will be required to present a yellow fever immunization certificate.

Effective 11 JUL 2016, an [amendment](#) to Annex 7 of IHR (2005) extends the validity of the certificate of vaccination against yellow fever from ten years, beginning ten days after vaccination, to the life of the vaccinated person. This applies to existing and new certificates; revaccination or boosters cannot be required as a condition of entry, regardless of issue date of the certificate.

On 27 JUL, the National Institute of Allergy and Infectious Diseases (NIAID) announced a multisite Phase I trial investigating an attenuated yellow fever vaccine (MVA-BN-YF) made by Bavarian Nordic. NIAID is also funding a Phase I trial through Saint Louis University's Center for Vaccine Development and University of Iowa. This investigational vaccine, which uses a modified smallpox vaccine, is intended to target vulnerable populations that are not recommended to receive the current yellow fever vaccine (i.e. pregnant women, elderly, immunocompromised).

WHO Yellow Fever Vaccination Recommendations in Africa, 2015



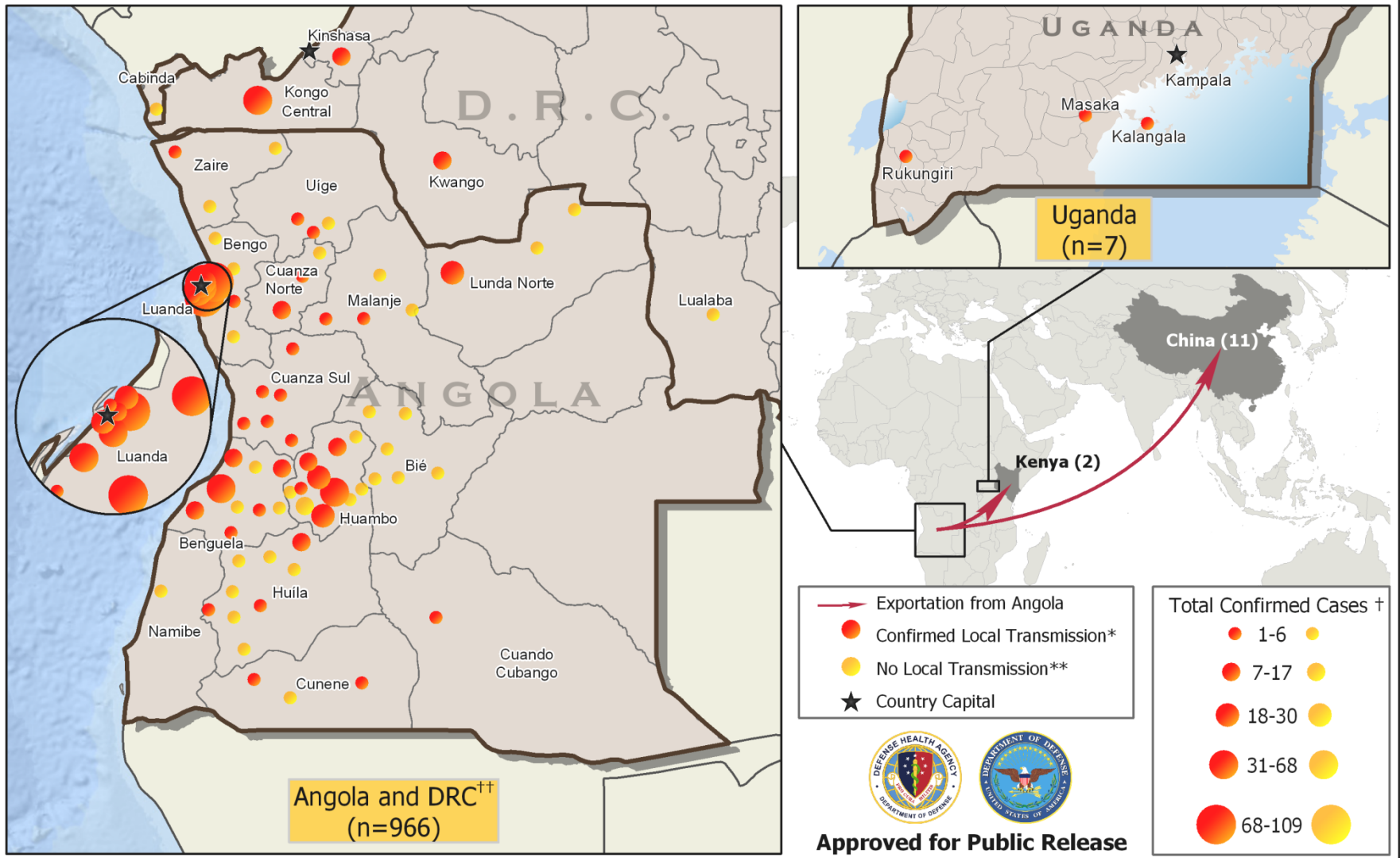
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Confirmed Yellow Fever Cases Associated with the Outbreaks in Angola, Democratic Republic of the Congo (DRC), and Uganda, as of 04 AUG 2016



* Red circles denote areas with confirmed autochthonous transmission of yellow fever. These case counts include both autochthonous and imported cases.

** Yellow circles denote areas with no confirmed autochthonous transmission of yellow fever. These case counts include only imported cases.

† The map reflects confirmed cases in Angola at the district level as of 04 AUG, DRC at the province level as of 23 JUN, and Uganda at the district level as of 08 JUN.

†† As of 24 JUN, DRC has reported 87 confirmed cases, which are included in the total confirmed case count for Angola and DRC. The map depicts 74 of the confirmed cases in DRC related to this outbreak; the distribution of the remaining cases is currently unavailable.

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